Appl. No. 10/022,728 Amdt. Dated November 19, 2004 Reply to Office Action of August 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented) A magnetic recording medium, comprising:

a non-magnetic substrate;

a B2-structured ruthenium-aluminum-containing underlayer comprising a (200) crystallographic orientation; and

a magnetic layer comprising a Co(11.0) crystallographic orientation, wherein the non-magnetic substrate is mechanically textured and OR-Mrt of the magnetic recording medium is more than about 1.05, thereby the magnetic recording medium is an oriented medium.

Claim 2 (Cancelled)

Claim 3 (Previously Presented) The magnetic recording medium of claim 1, wherein the ruthenium-aluminum-containing underlayer comprises RuAl and Ru is in a range from about 45 to about 51.5 atomic percent.

Claim 4 (Previously Presented) The magnetic recording medium of claim 1, further comprising an oxidized NiP film on the non-magnetic substrate, wherein the non-magnetic substrate is non-metallic.

Claim 5 (Previously Presented) The magnetic recording medium of claim 1, wherein the non-magnetic substrate is an Al-alloy substrate comprising electrolessly plated NiP, wherein the surface of the NiP film is oxidized.

Claim 6 (Previously Presented) The magnetic recording medium of claim 1, further comprising a chromium-containing second underlayer disposed between the ruthenium-aluminum-containing underlayer and the magnetic layer.

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Claim 7 (Previously Presented) The magnetic recording medium of claim 4, wherein the oxidized NiP film comprises a phosphorus content in a range of about 12 to about 50 atomic percent and an oxygen content in a range of about 0.5 to about 50 atomic percent in the top 50Å of the oxidized NiP film.

Claim 8 (Previously Presented) The magnetic recording medium of claim 7, wherein the oxidized NiP film has a thickness of about 50-200,000Å.

Claim 9 (Previously Presented) The magnetic recording medium of claim 1, wherein the magnetic layer comprises an alloy material selected from the group consisting of CoCrPtB, CoCrPtBTa, CoCrPtBTaNb, CoCrPt, CoCrNi, CoCrPtTa, CoCrPtTaNb, and CoCrTa.

Claim 10 (Previously Presented) The magnetic recording medium of claim 1, wherein the ruthenium-aluminum-containing underlayer has a thickness of about 50-800 Å.

Claim 11 (Previously Presented) A method of making a magnetic recording medium comprising:

providing a non-magnetic substrate;

depositing a B-2 structured ruthenium-aluminum-containing underlayer comprising a (200) crystallographic orientation on the non-magnetic substrate; and

depositing a magnetic layer comprising a Co(11.0) crystallographic orientation on the B-2 structured ruthenium-aluminum-containing underlayer, wherein the non-magnetic substrate is mechanically textured and OR-Mrt of the magnetic recording medium is more than about 1.05, thereby the magnetic recording medium is an oriented medium.

Claim 12 (Previously Presented) The method of claim 11, wherein the ruthenium-aluminum underlayer comprises from about 45 to about 51.5 atomic percent ruthenium.

Claim 13 (Previously Presented) The method of claim 11, further comprising depositing a chromium-containing second underlayer between the RuAl-containing underlayer and the magnetic layer.

Claim 14 (Previously Presented) The method of claim 11, further comprising depositing a CoCr-containing intermediate layer between the RuAl-containing underlayer and the magnetic layer.

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Claim 15 (Previously Presented) The method of claim 11, wherein the magnetic layer comprises an alloy material selected from the group consisting of CoCrPtB, CoCrPtBTa, CoCrPtBTaNb, CoCrPt, CoCrNi, CoCrPtTaNb, and CoCrTa.

Claim 16 (Previously Presented) The method of claim 11, wherein the ruthenium-aluminum-containing underlayer has a thickness of about 50Å to about 800Å.

Claim 17 (Previously Presented) The method of claim 11, further comprising sputter-depositing an oxidized NiP layer on the non-magnetic substrate.

Claim 18 (Previously Presented) The method of claim 11, further comprising electroless plating of the non-magnetic substrate with a NiP layer, then oxidizing and mechanical texturing the surface of the NiP layer, wherein the non-magnetic substrate is an Al-alloy substrate.

Claim 19 (Previously Presented) The method of claim 17, wherein the oxidized NiP layer comprises a phosphorous content of from about 12 at.% to about 50 at.%, and an oxygen content of from about 0.5 at.% to about 50 at.% in the top 50Å of the oxidized NiP layer.